

CLAIMS

1. (Currently Amended) A method for operating a multi-mode mobile station comprising at least two antennas, wherein at least two modes operate within at least one common range of frequencies, comprising:

transmitting a signal from a first antenna circuit of the mobile station in the common range of frequencies; and

electronically detuning the resonance of a second antenna ~~circuit~~ of the mobile station such that the resonance of the second antenna ~~circuit~~ is mis-matched to the first antenna ~~circuit~~ so as to reduce coupling of the transmitted signal from the first antenna ~~circuit~~ into the second antenna ~~circuit~~.

2. (Original) A method as in claim 1, wherein the common range of frequencies comprises 1900MHz.

3. (Original) A method as in claim 1, wherein the common range of frequencies comprises 850MHz.

4. (Original) A method as in claim 1, wherein the step of detuning comprises varying an impedance of at least one component that forms a part of the second antenna circuit.

5. (Original) A method as in claim 4, wherein the at least one component is comprised of a stripline.

6. (Original) A method as in claim 4, wherein the at least one component is comprised of a PIN diode.

7. (Original) A method as in claim 4, wherein the at least one component is comprised of a variable capacitance.

8. (Original) A method as in claim 4, wherein the at least one component is comprised of a FET diode.

9. (Original) A method as in claim 3, wherein the at least one component is comprised of an active component that is put into a passive state.

10. (Original) A method as in claim 1, wherein the step of detuning comprises operating at least one switch for adding a length of strip line to, or for subtracting a length of strip line from, the second antenna circuit.

11. (Original) A method as in claim 1, wherein the step of detuning comprises operating at least one switch for connecting a length of strip line to ground, or for disconnecting a length of strip line from ground.

12. (Currently Amended) A multi-mode mobile station comprising at least two antennas, wherein at least two modes operate within at least one common range of frequencies, comprising:

for each mode, a transmitter circuit comprising an antenna circuit that operates in the common range of frequencies; and

a controller, responsive to a first one of said transmitter circuits transmitting, for electronically detuning the resonance of a second antenna ~~circuit~~ of the mobile station such that the resonance of the second antenna ~~circuit~~ is mismatched to the first antenna ~~circuit~~ so as to reduce coupling of the transmitted signal from the first antenna ~~circuit~~ into the second antenna ~~circuit~~.

13. (Original) A multi-mode mobile station as in claim 12, wherein the common range of frequencies comprises 1900MHz.

14. (Original) A multi-mode mobile station as in claim 12, wherein the common range of frequencies comprises 850MHz.

15. (Original) A multi-mode mobile station as in claim 12, wherein the controller, when detuning, varies an impedance of at least one component that forms a part of the second antenna circuit.

16. (Original) A multi-mode mobile station as in claim 15, wherein the at least one component is comprised of a stripline.

17. (Original) A multi-mode mobile station as in claim 15, wherein the at least one component is comprised of a PIN diode.

18. (Original) A multi-mode mobile station as in claim 15, wherein the at least one component is comprised of a variable capacitance.

19. (Original) A multi-mode mobile station as in claim 15, wherein the at least one component is comprised of a FET diode.

20. (Original) A multi-mode mobile station as in claim 15, wherein the at least one component is comprised of an active component that is put into a passive state.

21. (Original) A multi-mode mobile station as in claim 12, wherein the controller, when detuning, operates at least one switch for adding a length of strip line to, or subtracting a length of strip line from, the second antenna circuit.

22. (Original) A multi-mode mobile station as in claim 12, wherein the controller, when detuning, operates at least one switch for connecting a length of strip line to ground, or for disconnecting a length of strip line from ground.